Serial No. 09/509,872
Art Unit 2665

Amendments to Claims

Please amend the claims as follows:

Claim 1 (currently amended) A method of forwarding packets in a communication system having multiple incoming and output service interfaces <u>for</u> providing service to multiple <u>distinct and isolated</u> user networks, said method comprising:

       providing said system with multiple forwarding rules, said <u>forwarding</u> rules based on routing <u>topology and policing</u> information <u>relevant to each of said distinct and isolated user networks</u>;

       receiving said packets at one of said incoming service interfaces;

       selecting an appropriate forwarding rule based on a source address in said packets; and

       forwarding said packets to one of said output service interfaces based on a destination address in said packets and information in said forwarding rules.

Claim 2 (previously amended) The method as defined in claim 1 wherein said services interfaces support realms each relating to a specific instance of an internetworking service function.

Claim 3 (previously amended) The method as defined in claim 2 wherein said specific instance is a public Internet access service.

Claim 4 (previously amended) The method as defined in claim 2 wherein said specific instance is a virtual private network (VPN) service.

Claim 5 (currently amended) The method as defined in claim 2 4 wherein said VPN service is a bridged and/or routed connectivity service.

Claim 6 (currently amended) The method as defined in claim 2 4 wherein said VPN service is a network layer connectivity service.

Claim 7 (previously amended) The method as defined in claim 1 wherein said communication system includes an ATM transport fabric.

2

Serial No. 09/509,872
Art Unit 2665

Claim 8 (currently amended) A packet forwarding entity for a communication system comprising:

a plurality of distinct and isolated user networks;

multiple service interfaces providing instances of service to one of said specific distinct and isolated user networks;

multiple route servers for calculating multiple forwarded rules relating to instances of service to which said service interfaces belong based on ~~customer~~ routing, topology and policing information; and

edge forwarders to direct said service interfaces to user networks based on information in said forwarding rules.

Claim 9 (cancelled)

Claim 10 (cancelled)

Claim 11 (previously amended) The packet forwarding entity as defined in claim 8 wherein service interfaces relate to physical and logical connections.

Claim 12 (currently amended) The packet forwarding entity as defined in claim ~~8~~ 11 wherein said logical connections include multiple traffic flows from one or more ingress ports.

Claim 13 (previously amended) The packet forwarding entity as defined in claim 8 wherein said one of said instances of services is an internetworking service function.

Claim 14 (previously amended) The packet forwarding entity as defined in claim 13 wherein said internetworking service function is a Public Internet access service.

Claim 15 (previously amended) The packet forwarding entity as defined in claim 13 wherein said internetworking service function is a virtual private network (VPN) service.

Claim 16 (previously amended) The packet forwarding entity as defined in claim 15 wherein said VPN service is a bridged and/or routed connectivity service.

3

Serial No. 09/509,872
Art Unit 2665

Claim 17 (previously amended) The packet forwarding entity as defined in claim 16 wherein said internetworking service functions are provided over an ATM network.

Claim 18 (previously amended) The packet forwarding entity as defined in claim 16 wherein said internetworking devices support multiple protocols.

Claim 19 (previously amended) The packet forwarding entity as defined in claim 18 wherein said internetworking devices provide services at both the packet and frame levels.

Claim 20 (previously amended) The packet forwarding entity as defined in claim 19 wherein said internetworking services are managed by a single service provider.

Claim 21 (previously amended) The packet forwarding entity as defined in claim 18 wherein said multiple protocols include over ATM (MPOA) service via a MPOA client lookup cache management function.

Claim 22 (cancelled)

4